

WHAT IS CLAIMED:

1. A surface mountable electret condenser microphone comprising a case, a polar ring, a diaphragm, a spacer, a back-plate, a first base, a second base, and a printed circuit board (PCB), wherein the first base surrounds the diaphragm, the
5 spacer and the back-plate, thereby preventing deterioration of characteristics of an electret formed on any one of the diaphragm and the back-plate in a reflow process for surface mounting.
- 10 2. A surface mountable electret condenser microphone comprising a case, a polar ring, a diaphragm, a spacer, a back-plate, a first base, a second base, and a printed circuit board (PCB), wherein the first base surrounds an electret formed on any one of the diaphragm and the back-plate, thereby deterioration of characteristics of an electret formed on any one of the diaphragm and the back-plate in a reflow process for surface mounting.
- 15 3. A surface mountable electret condenser microphone as claimed in claim 1 or 2, wherein at least one of the first base, the diaphragm, the spacer and the back-plate is made from any one selected from polymer-based materials of ASA, Nylon 6, Nylon 66, Nylon 46, LCP, PBT, PC, PC/ABS, PC/PBT, PEEK, PEN, PES, PET, PMMA,
20 POM, PTFE, SAN, PPS, SBR and TPU, and from fluoro resin-based materials of PTFE(TFE), FEP, PFA, ETFE, CTFE, PVDF, PVE, PCTFE, ECTFE, EPE, Nylon 6, PP and hard PVC.
- 25 4. A surface mountable electret condenser microphone as claimed in claim 1 or 2, wherein the PCB allows various components to be mounted thereon, the components being soldered by any one selected from cream solders for high temperature of Sn/Ag, Sn/Cu, Sn/Ag/Cu, Sn/Ag/Cu/Sb (CASTIN™ alloy) and Sn/Ag/Cu/Bi (OATEY™ alloy).

5. A surface mountable electret condenser microphone as claimed in claim 4, wherein the PCB allows IC devices to be mounted thereon, the IC devices including a field effect transistor.

5

6. A surface mountable electret condenser microphone as claimed in claim 4, wherein the PCB allows IC devices to be mounted thereon, the IC devices including a built-in gain amplifier.

10

7. A surface mountable electret condenser microphone as claimed in claim 4, wherein the PCB allows IC devices to be mounted thereon, the IC devices including an analog-digital converter for digital conversion.

15

8. A surface mountable electret condenser microphone as claimed in claim 4, wherein the PCB allows IC devices to be mounted thereon, the IC devices including a decimation filter and a digital interface IC.

20

9. A surface mountable electret condenser microphone as claimed in claim 1 or 2, wherein the PCB is provided with a connecting terminal for connecting with an external circuit, the connecting terminal being formed with at least one groove for discharging gases generated in the reflow process for surface mounting.

25

10. A surface mountable electret condenser microphone as claimed in claim 9, wherein the connecting terminal includes a circular terminal for Vdd connection in the center, and annular sector ground terminals evenly spaced apart from each other along the periphery, the annular sector ground terminals being separated by the grooves so as to allow gases generated during the reflow process to be discharged.

11. A surface mountable electret condenser microphone as claimed in claim 9, wherein the connecting terminal protrudes to be higher than a curled surface of the electret condenser microphone, whereby facilitating connection with another PCB in the reflow process for surfacing mounting.

5

12. A surface mountable electret condenser microphone as claimed in claim 9, wherein the connecting terminal has a ball grid array for high temperature in order to make balls of the ball grid array higher than a curled surface of the electret condenser microphone, whereby facilitating connection with another PCB during the reflow process for surface mounting.

10